

IN THE CLAIMS

1. (Currently Amended) An alternator for a vehicle, comprising
two pole pieces having mutually interlaced poles, and
a magnet, the poles including a first flange and a second flange, the first flange and the second flange forming an undercut groove therebetween, the groove profiled substantially axially along lateral peripheral sides of each pole body, wherein the grooves engage the magnet between two interlaced poles, the groove profile preventing the magnet from escaping perpendicularly from the groove, and
a strip interposed between a face of the magnet and a first portion of at least one of the grooves, the strip being produced from a nonmagnetic material which is less hard than the magnet and operative to dampen deformation of the pole pieces.
2. (Previously Presented) The alternator as claimed in claim 1, wherein the strip is interposed between the magnet and the first portion of each of the grooves.
3. (Previously Presented) The alternator as claimed in claim 1 wherein the strip covers a circumferential face of the magnet.
4. (Original) The alternator as claimed in claim 3, wherein the circumferential face is oriented in a direction opposite to a shaft of the alternator.
5. (Currently Amended) An alternator for a vehicle, comprising
two pole pieces having mutually interlaced poles, and
a magnet, the poles including grooves profiled substantially axially along lateral peripheral sides of each pole body, wherein the grooves engage the magnet between two interlaced poles, the groove profile preventing the magnet from escaping perpendicularly from the grooves,
a first strip interposed between a face of the magnet and a first portion of at least one of the grooves, the first strip being produced from a nonmagnetic material which is less hard than the magnet, and

a second strip produced from a nonmagnetic material which is less hard than the magnet, ~~the strips~~ second strip interposed between ~~respective an~~ opposed face ~~faces~~ of the magnet and the ~~first portion and~~ a second portion ~~respectively~~ of at least one of the grooves, the first strip and the second strip operative to dampen deformation of the pole pieces.

6. (Previously Presented) The alternator as claimed in claim 1, wherein the groove profile of at least one groove is "U"-shaped.

7. (Previously Presented) The alternator as claimed in claim 1, wherein the groove profile of at least one groove is "V"-shaped, the "V"-shaped groove profile having a first branch which is locally parallel to a circumferential face of the poles.

8. (Previously Presented) The alternator as claimed in claim 7, wherein the "V"-shaped groove profile has two branches, the first branch closer to a shaft of the alternator than the other branch.

9. (Previously Presented) The alternator as claimed in claim 1, further comprising a layer of adhesive which is more flexible than the magnet and is interposed between the strip and the magnet.

10. (Original) The alternator as claimed in claim 9, wherein the magnet includes two separate parts bonded to one another by a layer of material which is more flexible than the magnet.

11. (Previously Presented) The alternator as claimed in claim 10, wherein the material is identical to the adhesive.

12. (Previously Presented) The alternator as claimed in claim 1 having a plurality of magnets and a plurality of strips, wherein at least two of the plurality of magnets are associated with respective strips.

13. (Previously Presented) The alternator as claimed in claim 12, wherein a majority of the magnets are associated with respective strips.

14. (Previously Presented) The alternator as claimed in claim 12, wherein the strips comprise parts that are independent of one another.

15. (Original) The alternator as claimed in claim 1, wherein the strip comprises glass fiber embedded in pre-impregnated plastic.

16. (Currently Amended) An alternator for a vehicle, the alternator comprising:

a magnet;

two pole pieces having mutually interlaced poles, the poles having inner flanges and outer flanges which form undercut grooves therebetween, the grooves profiled substantially axially along lateral peripheral sides of each pole body, the magnet interposed in the grooves between two interlaced poles, the groove profile preventing the magnet from escaping the grooves in a plane perpendicular to the groove profile; and

a first strip of nonmagnetic material less hard than the magnet, the first strip interposed between a circumferential face of the magnet and the length of a first portion of at least one of the grooves, the first portion of the groove extending parallel to the circumferential face.

17. (Currently Amended) The alternator of claim 16 wherein the first strip is interposed between the magnet and the length of first portion of each of the grooves.

18. (Original) The alternator of claim 16 wherein the first strip covers a circumferential face of the magnet.

19. (Original) The alternator of claim 18 wherein the circumferential face is oriented in a direction opposite to a shaft of the alternator.

20. (Currently Amended) The alternator of claim 16 further comprising a second strip of nonmagnetic material, the first strip and the second strip interposed between respective opposed faces of the magnet and the first portion and a second portion respectively of at least one of the grooves, the second portion of the groove extending parallel to the circumferential face.

21. (Previously Presented) The alternator of claim 16 wherein at least one groove is “U”-shaped.
22. (Previously Presented) The alternator of claim 16 wherein at least one groove is “V”-shaped, with a first branch of each “V”-shaped groove locally parallel to a circumferential face of the poles.
23. (Previously Presented) The alternator of claim 22 wherein the first branch is closer to a shaft of the alternator than the other branch of the “V”-shaped groove.
24. (Original) The alternator of claim 16 further comprising a layer of adhesive more flexible than the magnet, the layer of adhesive interposed between the first strip and the magnet.
25. (Original) The alternator of claim 24 wherein the magnet includes two separate magnet portions bonded to one another by a layer of material more flexible than each of the magnet portions.
26. (Original) The alternator of claim 25 wherein the material of the layer is identical to the adhesive.
27. (Previously Presented) The alternator of claim 16 comprising a plurality of magnets and a plurality of strips, wherein at least two of the plurality of magnets are associated with respective strips.
28. (Previously Presented) The alternator of claim 27 wherein the respective strips comprise parts that are independent of each other.
29. (Original) The alternator of claim 16 wherein the first strip comprises glass fiber embedded in pre-impregnated plastic.
30. (Currently Amended) An alternator for a vehicle, the alternator comprising:

a magnet;

two pole pieces having mutually interlaced poles, the poles having radially inner flanges and radially outer flanges with respect to the axial axis of the pole, wherein the outer flanges and corresponding inner flanges form undercut grooves profiled substantially axially along lateral peripheral sides of each pole body, the magnet interposed in the undercut grooves between two interlaced poles, the groove profile preventing the magnet from escaping perpendicularly from the undercut grooves;

a strip of nonmagnetic material less hard than the magnet, the strip interposed between the magnet and a portion of at least one of the grooves, the strip covering a circumferential face of the magnet oriented in a direction opposite to a shaft of the alternator and operative to absorb deformation of the pole pieces; and

a layer of adhesive more flexible than the magnet, the layer of adhesive interposed between the strip and the magnet and operative to dampen deformation of the pole pieces.